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Q&A With Erich Bloch

Former NSF Head Pushes For US Technology Policy

"Forgotten but not gone" is the customary status of those who linger in Washington after leaving federal office. But not so for Erich Bloch, who last August completed a six-year term as Director of the National Science Foundation. Bloch, notably outspoken in a trade that relishes caution and decorum, is currently involved in a variety of activities at the National Academies of Sciences and Engineering, the Council on Competitiveness, and several other policy-related organizations. He was a witness last month when the Council released a major report on industrial issues at a Senate hearing. Bloch spoke April 5 with SGR Editor Greenberg. Following is the text, transcribed and edited by SGR.

SGR. *From you and others, the calls are getting louder for a federal technology policy.*

Bloch. We have had a science policy for 40 years. We did not have a technology policy, except by default. The default case was essentially what defense, and maybe space, needed. And that's all the government really ever owned up to in terms of a role. The situation facing us has changed. One reason is that the timescales on which defense and the commercial sectors operate is completely different. Secondly, look what our competitors are doing in that regard. Their governments play a major role in funding and activities in generic technologies. We've got to acknowledge that and do something similar here. The first thing is to acknowledge the problem and provide some leadership.

SGR. *The White House Office of Science and Technology Policy [OSTP] issued a paper called* US Technology Policy *last year.*

Bloch. I think that goes a long way.

SGR. *But it didn't say anything that hadn't been said 10 years before.*

Bloch. I don't know. But the thing that was significant about it was that a report like that saw the light of day.

SGR. *That suggests the situation is desperate.*

Bloch. Well, I think it is.

SGR. *The mere appearance of a trite report—*

Bloch. Wait a minute, trite report or not a trite report, I haven't commented on the details. It's a policy statement, and I don't think it's trite, it's a policy statement. Second thing, what it doesn't do is lay out a strategy. You're absolutely right. But that's not what that report was supposed to do. The third thing, which you might say was not OSTP's doing—it was more Congress's doing—is to set in place a Critical Technologies Institute [SGR, February 15: "Report

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National Academy of Engineering

NAE Covers up Election That Nearly Defeated Its President

The National Academy of Engineering (NAE), honorary pinnacle of the profession, has imposed a blackout on the stormy details of its recent presidential election, merely announcing that Robert M. White has been re-elected for a third four-year term.

SGR has learned, however, that in the first contested presidential election in the NAE's 26-year existence, White was strongly challenged by a write-in candidate who politely but clearly depicted his administration as worn out and unresponsive to the nation's technological problems. The vote, which NAE refuses to divulge or confirm, was 747 for White and 514 for his sole opponent, Harold Liebowitz,

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In Brief

A priority trend toward "little science" and research on energy renewables and conservation is evident in the fiscal '92 budget resolution approved by the House Budget Committee. The resolution, Congress's first step toward the budget that begins next October 1, is advisory but influential. The Administration's big boost for NSF was left intact, but a requested increase of $1.85 billion for NASA was trimmed to $600 million, and $80 million was cut from a proposed increase of $400 million for DOE. Solar research was boosted by $70 million instead of the $4 million requested by the White House. The resolution added $50 million to the NIH request, but if tradition holds, NIH will do far better than that.

Stonewalling having failed, Stanford President Donald Kennedy has resorted to maudlin eloquence in the indirect-cost scandals that have brought the roof down on his own school and spoiled the racket for a lot of others, too. In an address March 23 to an alumni group, Kennedy said, "I take some comfort in the lines by Ernest Hemingway: 'The world breaks everyone, and afterward many are stronger at the broken places.' "

The science and engineering share of bachelor's degrees fell from 21 percent of the total in 1985 to 18 percent in 1989 and engineering degrees dropped by over 12,000 since 1986, according to a report on S&T manpower trends by the Commission on Professionals in Science and Technology. The report, ***Professional Women and Minorities: A Manpower Data Resource Service*** **(272 pp., $100) is available from: Commission on Professionals in Science and Technology, 1500 Massachusetts Ave. NW, Suite 831, Washington, DC 20005; tel 202/223-6995.**

. . . NAE Conceals Fact That Election Was Contested

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former Dean and now Professor of Engineering at George Washington University, who was listed on the ballot as a "petition candidate." The vote was the largest ever in the NAE, which currently has about 1500 members.

NAE is a separate, far younger, and less-classy affiliate of the 128-year-old National Academy of Sciences (NAS). Alongside its honorary functions, it closely collaborates with the NAS on some $150 million a year in advisory services for federal agencies. With a membership mainly divided between academic achievers and senior industrial executives, NAE has been afflicted by a fuzzy identity from the start. Like the Academy of Sciences, under whose Civil War-era Congressional charter it exists, the Academy of Engineering emphasizes its private status, even while hustling after federal money, and insists that its internal affairs are no business of outsiders.

Liebowitz is by no means a non-establishment figure in NAE affairs. Elected to the Academy in 1975, he was elected NAE Home Secretary—a senior position—in 1978 and reelected in 1982. Nor was there great discontent with White's tenure, which many Liebowitz supporters acknowledged as productive in putting the NAE on a firm financial basis, cementing close ties with the Academy of Sciences, and giving the NAE greater visibility in Washington.

Nonetheless, the election raised a curtain on substantial rank-and-file discontent in one of the nation's most prestigious and decorous professional societies. And the election campaign has left a residue of bitterness in the challenger's camp, where some members are privately charging foul play by an old-guard faction that rallied to White's support.

In the anti-*glasnost* tradition of scientific and technical societies, the NAE's announcement of the election outcome, in a press release dated April 3, did not mention Liebowitz or even acknowledge that a contest for the presidency had occurred. White's office told SGR that he was traveling and unreachable for comment, while William C. Salmon, the NAE Executive Officer, responded to SGR with a performance in non-communicative conversation. "Voting information is not made public. It is restricted to members," he said. Asked about the absence of any reference to Liebowitz in the NAE announcement of White's re-election, Salmon said voting details are withheld because "they are not helpful to the other candidate."

Despite the preference of the NAE management for consigning the election to an Orwellian memory hole, SGR's piecing together of events shows that right up to the March 31 deadline for receipt of mail ballots, this election was perhaps the most turbulent issue in the NAE's quarter-century history.

The intensity of feeling is revealed in scores of letters among the members that have come into SGR's possession. The letters started to circulate early this year after Liebowitz sought a place on the ballot by satisfying the requirement of support of five percent of the members from at least ten institutions. Though comfortably surpassing the petition requirement, the Liebowitz candidacy was not accepted by the NAE Nominating Committee, whose recommendation of White's solo candidacy was endorsed by the NAE Council. Having qualified, however, as a petition candidate, Liebowitz was included as such on the ballot, and the campaign then began.

In a letter to all NAE members in February, Liebowitz carefully avoided criticism of White—who is quite popular among NAE members and respected in Washington—and concentrated on the themes of electoral choice, time for a change after eight years, and the need for a more vigorous NAE role in technology-policy affairs. "In spite of NAE's twenty-five years of service," Liebowitz wrote, "the country's technical agenda does not give sufficient weight to engineering." If elected, he vowed, he would trim the NAE's agenda and initially concentrate its analytical resources on a few basic issues, including national security and energy independence, engineering research, environment, and industrial competitiveness. Though far from novel and overlapping to some extent with activities already in progress, the Liebowitz candidacy quickly elicited wide support among the members—and set off alarms in the NAE's front office.

Typical among the favorable responses was a widely circulated letter from Arthur B. Metzner, Professor of Chemical Engineering at the University of Delaware, who wrote of the Liebowitz platform: "What a breath of fresh air . . . Convert this national retirement home into an active organization? What a change!" Another letter endorsing Liebowitz, jointly signed by NAE members Ray W. Clough and Alex C. Scordelis, Professors of Structural Engineering, UC Berkeley, stated: "The NAE needs an infusion of ideas and leadership to invigorate the organization and increase active participation by a broader segment of its membership."

Allegations of narrow membership participation and governance were made by several NAE members, including F.E. Richards, Professor of Civil Engineering emeritus,

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. . . NAE Leaders Rally to Keep Their Man in Office

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University of Michigan, who described the NAE as having "one of the worst 'old boy' situations that I have ever seen in a professional society."

Robert M. Drake Jr., an emeritus member, wrote, "I have long been of the opinion that the NAE positions have been held by more or less the 'in' group . . ." And George E. Herrmann, Professor of Applied Mechanics, Stanford University, endorsed Liebowitz's candidacy in a "Dear Colleague" letter that stated: "In view of the increasing challenges and opportunities for action which the NAE will be facing in the future, it is important to energize the organization, to open new vistas and to involve more members directly in its activities."

J. Fred Bucy, retired CEO of Texas Instruments, praised White's performance, but argued that "after two terms in office, we should elect a person with new ideas who can introduce new energy—a person who will invigorate an organization." Whether by direct response or coincidence, Bucy received a letter two weeks later from Sol Buchsbaum, Senior Vice President of AT&T Technology Systems, supporting White. "In my humble opinion," Buchsbaum wrote, "Bob has done a superb job presiding over the affairs of our Academy and deserves to be re-elected."

The bulk of the mail, however, favored Liebowitz. For the NAE management, these signs of an insurgent groundswell were alarming, given that fewer than half the NAE electorate normally bothers to cast ballots. A counterattack and get-out-the-vote campaign was promptly staged, led by one of the most powerful and assertive figures in NAE affairs, Stephen D. Bechtel Jr., Chairman emeritus of the Bechtel Group construction firm. Bechtel, a member since 1975, served from 1982-86 as NAE Chairman, a parttime post, usually reserved for industry, just below the fulltime job of President. In the view of many, NAE affairs usually reflected Bechtel's preferences during his Chairmanship, and are still heavily influenced by his wishes.

As a member of the Nominating Committee that endorsed White for a one-candidate slate, Bechtel had a bird's-eye view of the election prospects, and obviously didn't like what he saw. On February 25, Bechtel made a strong pitch for White's re-election in a letter to all members. Indirectly taking on the tired-blood issue by noting White's age, 68, and Liebowitz's, 67, Bechtel stated that "White is on the ballot with the full support of the Nominating Committee and the Council." Liebowitz, he pointed out, "is on the ballot by petition." Bechtel went on to attribute many important accomplishments to White, and noted that "I was one of the many people who urged Bob to consider serving a third term. . . ."

Expressing "high respect for [Liebowitz] as a person," Bechtel added that "I do not feel that he is the better candidate for the President of the NAE. There are other people in our membership who would be good presidents, but at this point in time, I believe Bob White is clearly the best answer."

Bechtel concluded with a reference to the membership of the Nominating Committee, noting, "Everyone fully agreed that Bob should be nominated as the only candidate. The Committee knew of Hal's [Liebowitz's] petition and declined to include him on its recommended slate. You obviously should do what you believe is right," Bechtel advised his colleagues. "And for your consideration, I wanted you to be aware of my own strong personal feelings."

A few days later, a similar expression of support for White was sent to all NAE members by Martin Goland and H. Norman Abramson, President and Executive Vice President, respectively, of the Southwest Research Institute, both active in NAE affairs. The authors advised their colleagues that "we should have great respect for the workings of the nominating committees of our Academy."

After the election results trickled out, following the official count on April 1, several members expressed outrage about some of the tactics employed in White's behalf, particularly Bechtel's references to White as the sole choice of the Nominating Committee and the NAE Council. Daniel Berg, Institute Professor of Science and Technology at Rensselaer Polytechnic Institute, told SGR that he believed it was "inappropriate for a member of the Nominating Committee to campaign using the name of the Committee."

A similar view was stated anonymously by another member, a West Coast industrial engineer, who said, "It's not the function of the Nominating Committee or any of its members to campaign for a candidate."

H. Guyford Stever, Chairman of the Nominating Committee, disagreed with that, insisting that "all voting members, after doing their nominating, are free to do their own thing." Asked whether the nominating vote for White was unanimous, as suggested in Bechtel's campaign letter, Stever simply said, "We decided on one candidate." He added, "It was a reasonably clean election."

For invigorating the staid Academy of Engineering, there is no doubt that it was a useful election. But the fact is that the NAE, like many other professional societies, is controlled by a fulltime salaried bureaucracy in collaboration with a narrow band of self-perpetuating elected officers. This situation is commonly blamed on membership apathy. But as can be seen in the NAE election, apathy alone is not the problem. The established order is deeply dug in and capable of resisting movements for change.

Finally, there is the spectacle of the Academies of Sciences and Engineering, living off the taxpayers (presidents of each are paid over $200,000 a year), and excelling in trumpet calls for scientific freedom and open communication, both of which, they assert, are indispensable for democracy. And yet they run their internal affairs in a secretive, high-handed fashion that today would be ridiculed to oblivion in the Soviet Union.—DSG

. . . National Labs Underutilized for Industrial Needs

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on Critical Technologies, Plans for New Institute Due Soon"]. That's supposed to lay out a strategy. When it will surface, I don't know. But I think there has been some movement.

Leadership is the number one need. There has to be an acknowledgement that there is such a thing as a government role in the technology strategy of the country. A third thing is looking at the resources that the government spends and making them more directly applicable to technology work. My focus has been on government laboratories. Everybody who has ever looked at them has said they're an underutilized resource. We cannot afford that any longer. We're spending $20 billion [a year on federal laboratories], and that's a lot of money. So, utilize them—not all of them, but a portion—and put them in direct line with what's needed from an industry viewpoint. The fourth area is collaboration, more collaborative kinds of efforts between industry and the government—getting industry input into some of the deliberations, which doesn't happen today prior to an Administration budget.

SGR. *A commercial, profit-seeking company and a civil service laboratory are different beasts.*

Bloch. Absolutely. They're different beasts. But some of the examples [of collaboration] are kind of impressive. For instance SEMATECH [an industrial consortium, subsidized by the Defense Department, for research on semiconductor manufacturing]. Now, the jury is still out on it. But there was government and industry getting together. It was on a funding level, but that's an important example. The Japanese in 1978 started the VLSI [Very Large Scale Integration] project, which was a one-year project, which combined government laboratories and researchers with industry to lay the foundation for what is today the Japanese semiconductor companies.

SGR. *Is that relevant to the American scene?*

Bloch. No, but I think we should try to learn from everybody. If there's something to be learned from the Japanese, why not?

SGR. *You've said it and others have, too, that we're not inclined to learn from other people.*

Bloch. We have to change that. Maybe 30 years ago we knew everything. That's no longer the case today.

SGR. *What would your industrial policy look like?*

Bloch. I'm not talking about industrial policy. I'm talking about technology policy.

SGR. *Would there be a new agency?*

Bloch. No, I don't believe that organizational changes fix anything. Sometimes they do, but go fix the problem first and then ask yourself how does the organization work with it. I think there would be more of an allocation of dollars toward generic technologies helpful to industrial competitiveness. I would take it out of the R&D for defense.

SGR. *Alan Bromley [the President's Assistant for Science and Technology] makes the argument that in a time of relative peace and declining defense spending, we should put more money into defense R&D.*

Bloch. I'm sorry, I don't have to agree with that, and I don't. I think we are spending over 62 percent of our federal R&D on defense, and I think that's too much. I've said this for the last six years. I think a 50-50 kind of a split is more akin to what we should be spending.

SGR. *Would you set up more SEMATECHs?*

Bloch. One example could be more SEMATECHs. By that I don't mean exactly the same kind of an arrangement that exists with SEMATECH. But generically, more SEMATECHs. I think we should have something like that in some of the materials areas, in biotechnology, and in the information sciences. Now, there is quite a bit in the '92 budget with regard to that, at least in high-performance computing and communications. But it's not far-reaching enough.

SGR. *Do you give any credit to the concerns that these collaborative efforts detract from the competitive spirit?*

Bloch. No, I don't believe this for one second. I think that's a fallacious kind of thinking. These generic technologies are pretty far removed from the marketplace itself, and there's enough differentiation that occurs between knowing something technically and having a product in the marketplace. And this differentiation can be used by the various companies to keep their competitiveness up where it is today.

SGR. *Why not go whole hog and provide direct financial help for smart young companies that need capital?*

Bloch. I think that's going too far. Number one, that's much too close to the marketplace. Number two, we have something like that. It's called SBIR [Small Business Innovation Research program, under which federal agencies are required to provide 1.25 percent of their external research funds to small research firms.] I have no problem with SBIR. Again, that's pretty far removed from the marketplace itself. It's trying out an idea, bringing it to the point where somebody else can pour some money into it, if it makes sense. Also, we have a tremendous venture-capital industry in the country, which is kind of unique. And it always surprises me, regardless of the economic environment, that there's a lot of money lying around for these purposes. It goes into some of these companies, but some of the work has to be done beforehand, before these companies can take off.

SGR. *A lot of the work in the national labs resembles commercial and industrial research. Are we getting value out of that?*

Bloch. That's a very puzzling kind of a question. I've had, especially since I've left NSF, a number of discussions on that issue, with both industry people and government laboratory people. Let me characterize the situation. First of all, with some exceptions, there's no involvement by industry in setting the strategy, the direction, or the details of

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. . . Scientists Should Have Concern for the Taxpayers

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a program or project in a federal laboratory. As a consequence, a federal laboratory goes off on its own. It defines a problem as it sees it. That's a mistake. The second thing is the auspices under which a government laboratory operates is government and not industry. The parameters for setting a project and program in place are completely different. The goals are different from what industry's would be. As a consequence, even though there might be a laboratory that works in an area that is of great importance to industry, the fallout for industry is not direct. And that causes misunderstanding, lack of interest. What I'm talking about is something that would involve industry in the strategy, the program definition, in the execution of the program, because I feel industry should put some people or some money in there or both, so that the transfer of the technology would occur.

SGR. *Britain tried that some years back with the Rothschild Plan. Apparently that just dribbled away.*

Bloch. Some of it dribbled away, but there have been some successes, where industry today is putting money into it. And I think that's a good model. The other model, which Mrs. Thatcher used, I think is not very good. She took a whole laboratory and privatized it. I think that's too much of a step. Harwell [a major laboratory of the UK Atomic Energy Authority], for instance. Not that it couldn't work, but that's a major operation. I'm for taking a more modest step. The government's job ends when there is enough knowledge about a technology around so that industry can take off on it and do whatever it wants, or waste it, for that matter. That's industry's problem.

SGR. *Compiling lists of so-called critical technologies has become a new industry in Washington.*

Bloch. I don't think we can rest with that, but the focus on some of these technologies is very helpful. In this town, a lot of people have to say the same thing before anything happens.

SGR. *Sufficient time has passed for you to have reflected on your days at the Foundation.*

Bloch. I think my major achievement was that I stayed for six years. And I really mean that, because I think that organization in particular, but all organizations, need some stability. And the revolving door that existed before, I don't think helped the Foundation, the government, or the research enterprise of the US. The second thing is I think I brought more of a balance to it, in terms of what the Foundation is supposed to do: science, technology, getting industry involved, education, and all of that. I think the portfolio of the Foundation is a lot more varied than when I first walked in. The third thing which I hoped I changed was to make sure that the people at the Foundation know that they're really working for the taxpayer, and not that they're working for the scientific community.

SGR. *I don't hear many scientists worrying about the taxpayer.*

Bloch. No, they're not, but the Foundation should be. That's exactly my point. Maybe the researchers should also be worried about that.

SGR. *Many regard grant support as an entitlement.*

Bloch. That's what I fought against. Maybe they still think so, but I think today there's more of a realization that the issue is more than just counting on the fact that you're entitled to something.

SGR. *Disappointments at NSF?*

Bloch. I could never quite get the budget through Congress which I felt was necessary. That certainly is a disappointment. I think some of the infighting in the community itself was not very helpful. The exaggeration of the community about the dollars that went into [a new program of research] centers, for instance, I thought was inappropriate. Many people in the community didn't see the need for NSF's expansion in science education. They looked at that one as taking money away from them. Maybe that's part of the entitlement syndrome. That was not helpful to the community or to NSF.

SGR. *You didn't get more than lip service from the White House on the goal of doubling the NSF budget in five years.*

Bloch. No, I don't think that's quite right. Both Presidents Bush and Reagan mentioned it a number of times, which was very helpful. Secondly, it appeared in the budget. The budget request to Congress contained exactly what they were saying. That was very helpful.

SGR. *But when it came to the crunch, they didn't lobby for you.*

Bloch. You don't know that. You don't know how much went on there. Neither they nor I succeeded. That's certainly a fact. And hopefully, maybe, the '92 budget will make a change in that. I would give them higher marks than you. There was a push there. Now, it's also true there was a push on many fronts, so this was not the only thing on the plate of the Administration, that's for sure.

SGR. *Considering the affection that's expressed for the Foundation, it is astonishing that the modest goal of doubling keeps receding to another year.*

Bloch. That's right. That's a disappointment that I think about quite often, and that I feel very strongly. We are caught in a zero-sum game within each appropriations committee. No doubt about it, NSF has been in conflict with housing, NASA, VA, EPA, and so forth, and that hurt us badly. And especially because some of these other agencies were not treated well by the Administration, there was a backlash within the committees, and we were the victim of that. But, unfortunately, that's how the system works. There's not much I could have done about it, except to try to influence people.

SGR. *There's an undercurrent of little scandals in science that receive a lot of attention in Congress.*

Bloch. There are too many incidents involving indirect

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. . . Misconduct, Cost Scandals Erode Political Trust

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costs and the general area of scientific fraud or abuse. And I think that's a bad situation. Regardless of how few these incidents are, regardless of what the money is in an indirect-cost issue, it doesn't matter. We don't need this. We don't need that kind of editorial-page exposure that we have had, in your newsletter and other places. It's time for the community itself to clean up its act. The expenditures of the government for academic research have become a pretty large number, regardless of what we say. We say that NSF didn't get its doubling. But still it's big, it's $2.8 billion that NSF is asking for in 1992. I think there should be much more of a concentrated effort by the community itself on publications and what that involves. What does it mean to have your name on a paper? It can't just be, yeah, that individual worked in my laboratory. There's a responsibility that goes with it which I don't think has been clearly understood. I think there should be a voluntary central point where some of these issues can be discussed, debated.

SGR. Isn't the Academy taking on that role?

Bloch. I hope so. I haven't seen the results yet, but I would hope so. On indirect costs, we need to get a much simpler system than what we have today. Maybe all these indirect-cost charges that people are talking about are legal charges. That's not the point. The point is are they proper from a moral kind of a viewpoint? I think one could simplify it by going to a constant indirect-cost rate, for everybody. And let the universities struggle with how they do that and how they accomplish that. I don't trust large organizations, anyway. I've a great mistrust for large organizations.

SGR. You came out of IBM and NSF.

Bloch. That was my point with NSF. I didn't trust NSF as an organization. That's why you have to constantly look at it, and constantly reorganize it and change it and improve its procedures. And the more it can be simplified, the better off you'll be in the end. So I think that's an issue that this community has to deal with.

SGR. So, you'd have a research grant covered by a set percentage.

Bloch. That would cover what the government thinks is a proper indirect cost. Now, if somebody needs more money than that, that's their problem. If somebody makes a profit on it, so much the better. But there has to be an incentive in an organization to keep its costs down. And that incentive doesn't exist in a university. It's not being enforced from the outside. In a company, you're under pressure. It's called the quarterly balance sheet. If you don't pass a test, you go into bankruptcy.

SGR. Do you feel that these episodes involving fraud and indirect costs are eroding public and political trust?

Bloch. Absolutely.

SGR. Have Congressmen asked you what's going on?

Bloch. Yeah. What's going on, how widespread is it? Just the fact that these problems are laying on the table is a distraction. We don't need that distraction. I'm convinced that there's not much behind it, except some mistakes that have been made, some problems that do exist. But how do you prove the point? You can't prove it, and as a consequence you've got to avoid these things. You've got to spend as much effort on avoiding it and putting the right complexion on things as you do on asking for money.

SGR. After your tour at NSF, why didn't you go on to another government position?

Bloch. I didn't have a good offer. Or even a bad one.

SGR. You weren't asked?

Bloch. I'm considered for one right now. Not what you'd consider a position. It's appointment to a committee. But I really wouldn't want to talk about it. Second thing, I think I need some time to think about myself a little bit. So, I wouldn't have been inclined to accept anything that was offered. I also had some offers in the private sector and academia, and I turned those down. Six years [as NSF Director] was a long haul and it took a lot out of me. I need a change of pace. I spend 20 percent of my time here at the Council on Competitiveness. I'm spending some time with the Economic Strategy Institute, of Clyde Prestowitz, another 10 percent. I spend a lot of time with both the Academy of Engineering and the National Research Council. I'm still the chairman of a working group on the [Academy] Government-University-Industry Roundtable. I've been consulting with a couple of committees funded by the private sector. And I've been looking at some positions on some boards, both in academia and industry.

Imanishi-Kari Speaks at NIH

A year after NIH revoked her grant because of doubts about her "fitness" to handle government money and just two week after NIH investigators accused her of fabricating data, guess who gave a seminar at the National Institutes of Health. Answer: Thereza Imanishi-Kari, of Tufts University, the central figure in the Baltimore case [SGR, April 1: "Squalor in Science: A Review of the 'Baltimore' Case"].

With about 50 persons in attendance, including several leading immunologists, Imanishi-Kari spoke at NIH on March 29 on "Restricted Endogenous Antibody Repertoire in Transgenic Mice." The topic is in the area of the 1986 *Cell* paper which her co-author, Nobelist David Baltimore, withdrew last month after the NIH Office of Scientific Integrity concluded that Imanishi-Kari had fabricated key data.

The seminar discussion never strayed from scientific matters. The invitation to Imanishi-Kari was issued several months ago by Alfred Singer, Chief of the Experimental Immunology Branch at the National Cancer Institute, when he spoke at Tufts. Singer correctly noted in response to an SGR inquiry that the NIH report on the Baltimore case is merely a draft at this point and that two of five scientific consultants on the case dissented to parts of the findings. He emphasized that Imanishi-Kari has not been found guilty of anything.

Letter: NIH Head Faults SGR Report on Court Ruling

To the Editor:

Several aspects of "Response Due on Zapping of NIH Fraud Regulations" [SGR, February 1] are factually incorrect, while others inaccurately and unfairly characterize the performance of the Office of Scientific Integrity (OSI) of the National Institutes of Health. The most significant inaccuracies concern the US District Court ruling in the Western District of Wisconsin in Abbs vs. Sullivan et al. Specifically:

(1) There were several incorrect references in the SGR article to the court's having ruled that the OSI was "created illegally." The court made no such ruling; in fact, the Abbs vs. Sullivan litigation did not deal with the creation of the OSI but rather with the Public Health Service (interim) Policies and Procedures for Dealing with Possible Scientific Misconduct.

(2) It is not correct that due process issues were "rendered moot" by the judge's ruling; the issue of whether OSI procedures meet due process requirements was not decided. However, the issue of whether the University of Wisconsin or Dr. Abbs had a liberty or property interest sufficient to merit due process was thoroughly examined and decided in favor of the Government. Moreover, the judge's ruling noted that the imposition of Public Health Service sanctions less than debarment is not subject to the determination of cause after a full hearing; that is, the due process required is at the discretion of the Government.

(3) The SGR article incorrectly implies that NIH is unique in its reliance on legal counsel from the Office of the General Counsel (OGC), located within the Office of the Secretary of the Department of Health and Human Services. Virtually all cabinet departments place the OGC at the top administrative level, with counsel assigned to the constituent agencies. Neither the Secretary of HHS, nor any other senior official has ever countermanded the NIH with respect to the Abbs vs. Sullivan litigation. As for the involvement of the Department of Justice in the lawsuit, it is mandated by statute.

(4) The SGR article contains a number of pejorative, unsubstantiated characterizations of the OSI ("glacial manner," "bizarre episodes," "a mess," "torpid pace"). None of the few lengthy OSI investigations became so primarily because of OSI. Some OSI investigations have been prolonged, but this is attributable to such factors as the length of time that has elapsed since the alleged or suspected misconduct occurred, the fact the original primary data were not secured by the cognizant institution at the time the alleged misconduct was first reported, the existence of ongoing litigation involving the principals, the need for extensive fact finding or data analysis to resolve differences of opinion among expert consultants, or the occasional unwillingness of respondents to cooperate with the OSI investigation.

William F. Raub
Acting Director, NIH
March 27, 1991

Editor's Note: (1) SGR erred by equating the court's invalidation of OSI procedures with the validity of OSI's creation. (2) As SGR noted, and Raub agrees, the due-process issue was not decided; space limitations regrettably precluded SGR from reporting all the details of the ruling. (3) Many subordinate agencies of Cabinet Departments possess their own Office of Chief Counsel or Office of General Counsel, among them the Federal Aviation Administration, the National Oceanic and Atmospheric Administration, the Customs Service, and the Bureau of Alcohol, Tobacco, and Firearms. In numerous policy conflicts with the parent Department of Health and Human Services, NIH is in the awkward position of having legal counsel on detail from HHS. (4) Regarding the pace of OSI operations, we note that the renowned Baltimore case came under investigation by OSI's predecessor in 1987, and is still not resolved. The meaning of last October's announcement on the Gallo case remains a puzzle to this date.

Job Changes & Appointments

E. William Colglazier, Director of three science and technology policy centers at the University of Tennessee, Knoxville, has been appointed Executive Director for the Office of International Affairs at the National Academy of Sciences, succeeding ***Victor Rabinowitch***, who last year was appointed Vice President for Programs of the John D. and Catherine T. MacArthur Foundation.

Donald A. Henderson, former Dean of the Johns Hopkins School of Hygiene and Public Health, was sworn in April 1 as Associate Director for Life Sciences of the White House Office of Science and Technology Policy.

Rick E. Borchelt, acting news chief at the National Academy of Sciences, has been named Press Secretary for the House Science, Space, and Technology Committee. He's succeeded at the Academy by ***Stephen Push***, formerly with a Washington public-relations firm.

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In Print: Energy, Space Station, Sustainable Farming

The publications listed are obtainable as indicated—not from SGR.

Meeting the Energy Challenges of the 1990s: Experts Define the Key Policy Issues (GAO/RCED-91-66; 194 pp., no charge), admirably clear, short reviews of the economics and politics of energy supply, consisting of papers delivered at a conference held in July 1990 by the General Accounting Office (GAO), which normally serves as Congress's sleuth on budgets and management. Participants, from government, industry, academe, and policy-research organizations, spoke under the broad headings of "Balancing Energy Supply and Demand," "Energy and the Environment," "Managing the Department of Energy," "Producing Nuclear Weapons Safely," and "Opportunities for Energy Research and Development."

Also from GAO: ***Nuclear Health and Safety: Efforts to Strengthen DOE's Health and Epidemiology Programs*** (GAO/RCED-91-57; 23 pp., no charge), a favorable assessment of the Department of Energy's efforts to overcome its well-earned reputation for coverups and dissembling on nuclear-related health issues. GAO notes the consolidation and upgrading of DOE health programs in an Office of Health established last year, with plans for increasing the staff from 26 to 86 in fiscal 1992. The key point noted by GAO is that DOE has recognized its legacy of suspicion and, to "restore public trust," has contracted its analytical epidemiology research to the Department of Health and Human Services.

Another from GAO: ***Space Station: NASA's Search for Design, Cost, and Schedule Stability Continues*** (GAO/NSIAD-91-125; 39 pp., no charge), a concise rendition of the Space Station Freedom saga, which boils down to less station for a lot more than was initially estimated, even as NASA writhes to stay within a Congressionally mandated 1991-95 total of $11.4 billion. That's $2.4 billion below the space agency's original spending plan for that period, but it's far from the total bill, which, in "then-year dollars," rose from a 1984 estimate of $11 billion to a current estimate of $38.3 billion. GAO explains in a footnote that "Then-year dollars"—increasingly popular in Washington fiscal lingo—"reflect the estimated purchasing power of the dollar in the year that an expenditure will occur. These estimates," it adds, "show the Congress and others the amounts that may have to be appropriated to complete a project."

Order GAO publications from: USGAO, PO Box 6015, Gaithersburg, Md. 20877; tel. 202/275-6241.

Space Studies Board Position Paper on Proposed Redesign of Space Station Freedom (10 pp., no charge), related to the preceding GAO report on space, a broadside from the university-dominated space-watching post at the National Academy of Sciences, which contends that the scaled-down, economy model of the space station will be limited in capacity for microgravity research and studies of the physiological effects of long-term space flight—both high-priority items in NASA pronouncements. Showing signs of a hurried production, the Board's position paper was leaked to the press less month. It was promptly denounced as "myopic" by Vice President Quayle, who chairs the National Space Council, while NASA, eager to get on with it, has been spreading the word that the Board's criticisms reflect misinformation. The Board's membership, however, is well-connected to the space establishment, knows whereof it speaks, and has long memories of NASA's neglect of science to meet the budget demands of the Shuttle program.

Order from: National Academy of Sciences, Space Studies Board, Harris Bldg., 5-A4, 2101 Constitution Ave. NW, Washington, DC 20418; tel. 202/334-3477.

Paying the Farm Bill: US Agricultural Policy and the Transition to Sustainable Agriculture (70 pp., $15.50), from the World Resources Institute, Washington-based policy-research center, says federal policies and traditional accounting methods for agriculture mask environmental costs that could be reduced by "resource-conserving production systems." The report, which presents case studies from Pennsylvania and Nebraska, says the federal government has shortchanged research on alternative farming methods and has employed evaluation methods that ignore the costs of environmental effects.

Order from: WRI Publications, PO Box 4852, Hampden Station, Baltimore, Md. 21211; tel. 301/338-6963.

Finding Common Ground: US Export Controls in a Changed Global Environment (488 pp., $34.95, plus $3 shipping), from a panel of the National Academy of Sciences, an earnest effort to plot a course between ham-handed export controls (an old American tradition) and unrestrained marketing. The panel, chaired by Roland W. Schmitt, President of Rensselaer Polytechnic Institute, repeatedly stresses that effective controls are increasingly difficult to manage, noting, among other problems, "Much technology that we might like to control has spread so widely, and is produced so extensively, that its control is no longer feasible."

Also from Academy: ***Europe 1992: The Implications of Market Integration for R&D-Intensive Firms*** (197 pp., $21), proceedings of a March 1990 conference sponsored by the Academy, with participants from industry and government in the US and Europe.

Order from: National Academy Press, 2101 Constitution Ave. NW, Washington, DC 20418; tel. 1-800-624-6242; in Washington, DC: 334-3313.

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